

## 20-010 Draining and filling-in of coolant – anti-freeze table

### Total filling capacities cooling system with heating and mixing ratio

Anti-freeze/water in liters

Model	Engine	Total filling capacity cooling system with heating	Mixing ratio anti-freeze <sup>1)</sup> /water <sup>2)</sup> for an anti-freeze protection up to –30 °C	–40 °C
115	115.923	11	5.00/6.00	5.75/5.25
	115.926			
	115.951			
123	115.938	10	4.50/5.50	5.25/4.75
	115.939			
	115.954			

<sup>1)</sup> Refer to specifications for service products page 325.

<sup>2)</sup> Refer to specifications for service products page 310 and 311. For model 115, always add 1 % = 10 cc/l anti-corrosion oil even when using anti-freeze.

### Tightening torques

		Nm
Drain plug radiator	model 115	8
	model 123	1.5–2 <sup>1)</sup>
Drain plug cylinder crankcase		30

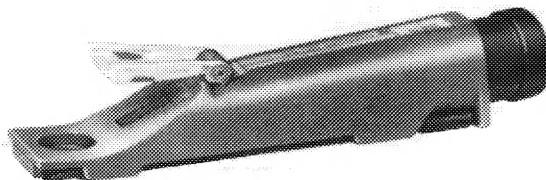
<sup>1)</sup> This torque can be attained by using a disc or a coin.

### Conventional tool

Anti-freeze tester

Prestone-VU-Check (Union Cabride)

e.g. made by Philipp Gather, D-4020 Mettmann 2



R - 4789

## Note

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In order to avoid corrosion, let not drop concentration of anti-freeze below  $-20^{\circ}\text{C}$  anti-freeze protection (30 % by volume).

If no anti-freeze is available and only water is filled in, make sure to add 1 % of a treating agent (anti-corrosion oil, 10 cc/l water), on model 115 this should be done, even when already using ant-freeze.

### Attention!

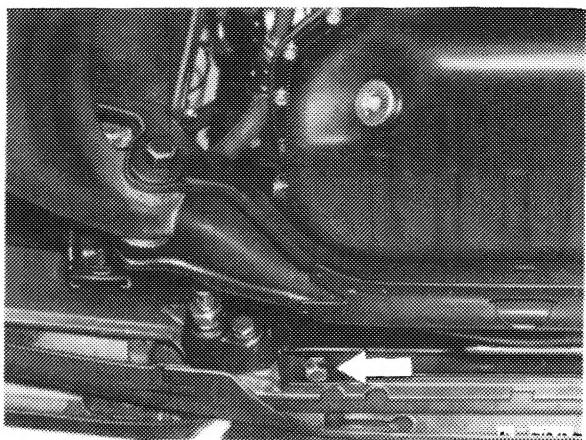
In order to avoid damage to light metal components, only use approved anti-freeze agents (specifications for service products page 325) and treating agents (specifications for service products page 311).

## Draining

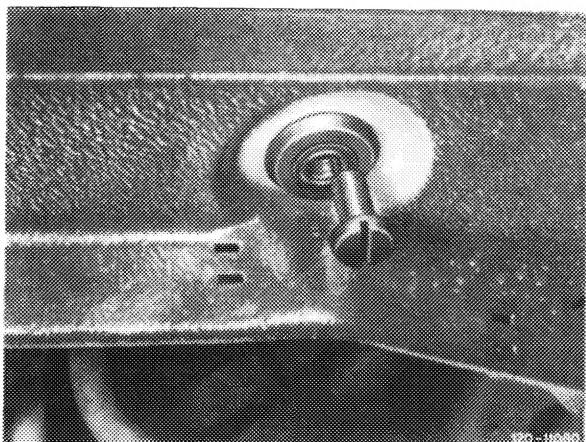
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1 Stepwise open closing cover on radiator (**only below  $90^{\circ}\text{C}$** ).

2 Unscrew drain plug on radiator.



Drain plug (arrow) model 115



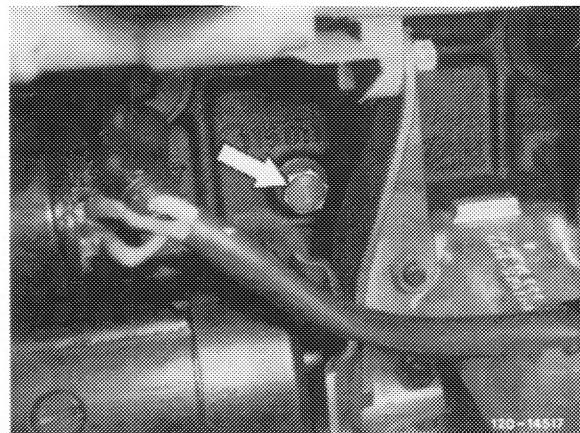
Drain plug model 123

180-11680

3 On vehicles with and without air conditioning, set heater regulation to maximum heating output.

On vehicles with automatic climate control (model 123), press push-button "DEF".

4 Unscrew drain plug (arrow) on cylinder crankcase at the right, rear of engine carrier.

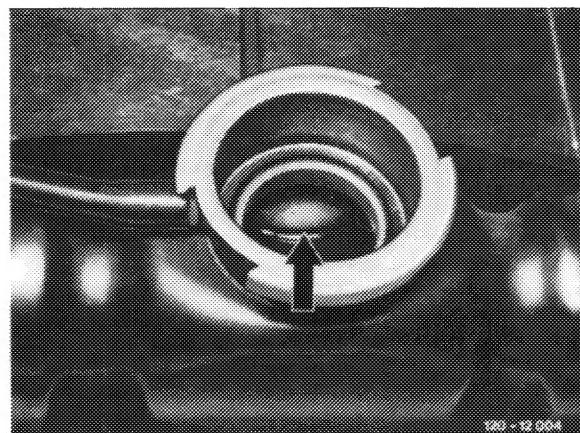


### Filling-in

5 Check on vehicles with or without air conditioning whether heating regulation has been set to maximum heating output and/or whether on vehicles with automatic climate control (model 123) the push-button "DEF" has been depressed.

6 Slowly fill-in coolant up to mark for cold coolant (model 115 arrow, model 123 "a"). Leave filler plug on radiator open.

Model 115

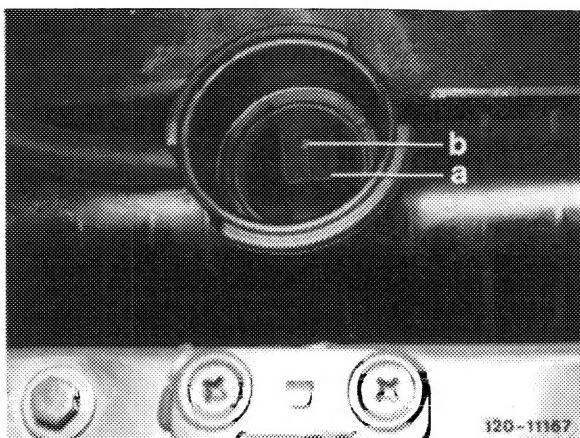


7 Warm-up engine by intermittently depressing the accelerator pedal until coolant thermostat opens. As from a coolant temperature of approx. 60 °C, put on radiator closing cap.

8 Check coolant level and top up to specified value.

Model 123

- a Level coolant cold
- b Level coolant warm



### Attention!

Open radiator closing cap only as from a coolant temperature below 90 °C.